## **Statement 15**

September 30, 2016

Statement By: Kevin Mottus, California Brain Tumor Association

See Study in Attachments

I am strongly opposed to the FCC plan to rollout and auction 5G spectrum technology due to the non-thermal biological health effects created by radiofrequency/microwave radiation or electromagnetic fields (EMF) emitted by wireless transmitters. These documented effects are not recognized and not protected by our current FCC safety standards.

A study on the effects of radiofrequency electromagnetic radiation on sperm function had the following conclusion:

"Among a total of 27 studies investigating the effects of RF-EMR on the male reproductive system, negative consequences of exposure were reported in 21. Within these 21 studies, 11 of the 15 that investigated sperm motility reported significant declines, 7 of 7 that measured the production of reactive oxygen species documented elevated levels and 4 of 5 studies that probed for DNA damage highlighted increased damage, due to RF-EMR exposure. Associated with this, RF-EMR treatment reduced antioxidant levels in 6 of 6 studies that studied this phenomenon, while consequences of RF-EMR were successfully ameliorated with the supplementation of antioxidants in all 3 studies that carried out these experiments. In light of this, we envisage a two-step mechanism whereby RF- EMR is able to induce mitochondrial dysfunction leading to elevated ROS production. A continued focus on research which aims to shed light on the biological effects of RF-EMR will allow us to test and assess this proposed mechanism in a variety of cell types."

I am strongly opposed to the FCC plan to rollout and auction 5G spectrum technology due to the non-thermal biological health effects created by radiofrequency/microwave radiation or electromagnetic fields (EMF) emitted by wireless transmitters. These documented effects are not recognized and not protected by our current FCC safety standards. MD and PhD experts, in the field of wireless microwave radiation health effects, warn us of the serious harm that microwave technology especially 5G along with its required deployment of multiple transmitters, will cause. We ask that you abort your plan to auction 5G spectrum and immediately halt the

rollout of 5G technology testing. We need to immediately institute safety standards that take into account non-thermal biological health effects. The research attached and cited shows that, at the power levels required for this technology to operate reliably over the project's large areas, the radiofrequency/microwave radiation will have significant biological health effects, especially on electrohypersensitive individuals and children (Cancer, Neurological effects, immune system disorders, reproductive harm and others). We are asking that you focus instead on installing only fiber optic wired connection to the Internet along with individualized subsidies to help poor people pay for wired/cabled connection to the Internet. Fiber optic wired connections eliminates wireless microwave radiation transmissions thus eliminating wireless microwave radiation health effects. In addition we insist on instituting RF Exposure standards significantly lower than our current thermal standards as recommended and supported by the Bioinitiative Report (Bioinitiative.org/conclusions) of 0.0003 microWatts per centimeter squared.

Kevin Mottus California Brain Tumor Association